

III. Remarks

Reconsideration of this application in light of the above amendments and the following remarks is requested.

Claims 1-29 were originally filed in the present application. Claims 23 and 24 are presently cancelled without prejudice or disclaimer, and no claims are presently added. Consequently, claims 1-22 and 25-29 remain pending in the present application.

Rejections under 35 U.S.C. §112: Second Paragraph

Claims 15 and 25-28 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

The Examiner has rejected claim 15 as lacking antecedent basis for “the working piece.” This inadvertent error has been corrected by the present amendments.

The Examiner has also rejected claim 25 as lacking explicit antecedent basis for an implied plurality of gas purge stations. As presently amended, claim 25 now provides explicit antecedent basis for the plurality of gas purge stations from which one is selected. Moreover, the optimized gas purge queue time of claim 25 is introduced for the first time in claim 25 and, thus, requires no antecedent basis. Consequently, as amended, claim 25 complies with §112, second paragraph.

The Examiner has also rejected claim 26 as lacking antecedent basis for a tag ID and for lack of clarity as to “what this tag ID is in relation to.” Consequently, claim 26 has been amended to address the Examiner’s concerns.

The Examiner has also rejected claim 27 as lacking antecedent basis for “the nitrogen purging.” This inadvertent error has been corrected by the present amendments.

The Examiner has also rejected claim 28 as lacking antecedent basis for tag information. Consequently, claim 28 has been amended to address the Examiner’s concerns.

Rejections under 35 U.S.C. §102: Chen

Claims 1, 10, 11, 16, 19 and 29 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,821,891 to Chen (“Chen”).

Claim 1

Claim 1 recites:

1. (Presently Amended) A system for manufacturing semiconductor integrated circuit (IC) devices, the system comprising:
 - an operating control system;
 - at least one process intermediate station in communication with the operating control system, wherein at least one of the at least one process intermediate station is one of a stocker and an overhead buffer (OHB);
 - and
 - a gas purge device, wherein the gas purge device is included in at least one of the at least one process intermediate station.

The PTO provides in MPEP § 2131 that

“[t]o anticipate a claim, the reference must teach every element of the claim....”

Therefore, to sustain a §102(e) rejection with respect to claim 1, Chen must contain all of the elements of claim 1. However, Chen fails to disclose a stocker or overhead buffer having a gas purge device, among other elements of claim 1. Consequently, a §102(e) rejection of claim 1 cannot be supported by Chen. Therefore, the Applicants respectfully request that the Examiner withdraw the rejection.

Claim 11

Claim 11 recites:

11. (Presently Amended) A system for manufacturing semiconductor IC devices, the system comprising:
 - an operating control system;
 - a plurality of process intermediate stations each in communication with the operating control system, wherein each of the plurality of process intermediate stations is one of a stocker and an overhead buffer (OHB); and
 - at least one gas purge device included in at least one of the plurality of process intermediate stations.

To sustain a §102(e) rejection with respect to claim 11, Chen must contain all of the elements of claim 11. However, Chen fails to disclose a stocker or overhead buffer having a gas purge device, among

other elements of claim 11. Consequently, a §102(e) rejection of claim 11 also cannot be supported by Chen. Therefore, the Applicants respectfully request that the Examiner withdraw the rejection.

Claim 16

Claim 16 recites:

16. (Presently Amended) A method for automatic nitrogen purge processing in manufacturing semiconductor IC devices, comprising:
transferring, via an operating control system, a workpiece to a process intermediate station, wherein the process intermediate station is one of a stocker and an overhead buffer (OHB) having a gas purge station;
performing gas purging of the workpiece; and
transferring, via the operating control system, the workpiece to a next process.

To sustain a §102(e) rejection with respect to claim 16, Chen must contain all of the elements of claim 16. However, Chen fails to disclose a stocker or overhead buffer having a gas purge device, among other elements of claim 16. Therefore, a §102(e) rejection of claim 16 also cannot be supported by Chen. Accordingly, the Applicants respectfully request that the Examiner withdraw the rejection.

Rejections under 35 U.S.C. §102: Iwata

Claims 1, 8-11, 16, 19, 23, 24 and 29 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,297,114 to Iwata ("Iwata").

Claim 1

To sustain a §102(b) rejection with respect to claim 1, Iwata must contain all of the elements of claim 1. However, Iwata fails to disclose a stocker or overhead buffer having a gas purge device, among other elements of claim 1. Consequently, a §102(b) rejection of claim 1 cannot be supported by Iwata. Therefore, the Applicants respectfully request that the Examiner withdraw the rejection.

Claim 11

To sustain a §102(b) rejection with respect to claim 11, Iwata must contain all of the elements of claim 11. However, Iwata fails to disclose a stocker or overhead buffer having a gas purge device, among

other elements of claim 11. Consequently, a §102(b) rejection of claim 11 cannot be supported by Iwata. Therefore, the Applicants respectfully request that the Examiner withdraw the rejection.

Claim 16

To sustain a §102(b) rejection with respect to claim 16, Iwata must contain all of the elements of claim 16. However, Iwata fails to disclose a stocker or overhead buffer having a gas purge device, among other elements of claim 16. Consequently, a §102(b) rejection of claim 16 cannot be supported by Iwata. Therefore, the Applicants respectfully request that the Examiner withdraw the rejection.

Rejections under 35 U.S.C. §103: Chen or Iwata in view of Wehrung

Claims 2, 6, 7, 18 and 20-22 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Chen or Iwata in view of U.S. Patent Application No. 2002/0164242 of Wehrung ("Wehrung"). The Applicants traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claims 1 and 16 and, thus, their dependent claims 2, 6, 7, 18 and 20-22.

As the PTO recognizes in MPEP § 2142:

... The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...

It is submitted that, in the present case, the Examiner has not factually supported a *prima facie* case of obviousness for the following, mutually exclusive, reasons.

1. Even When Combined, the References Do Not Teach the Claimed Subject Matter

Chen, Iwata and Wehrung cannot be applied to reject claims 1 or 16 under 35 U.S.C. §103 which provides that:

A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains ... (Emphasis added)

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, since Chen, Iwata and Wehrung each fail to teach a stocker or overhead buffer having a gas purge device, among other elements of claims 1 and 16, it is impossible to render the subject matter of any of claims 1 and 16 and their dependent claims 2, 6, 7, 18 and 20-22 as a whole obvious, and the explicit terms of the statute cannot be met.

Thus, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

2. The Combination of References is Improper

Assuming, arguendo, that the above argument for non-obviousness doesn't apply (which is clearly not the case based on the above), there is still another mutually exclusive and compelling reason why Chen, Iwata and Wehrung cannot be applied to reject claims 1 or 16 or their dependent claims under 35 U.S.C. §103.

§2142 of the MPEP also provides:

...the examiner must step backward in time and into the shoes worn by the hypothetical 'person of ordinary skill in the art' when the invention was unknown and just before it was made.....The examiner must put aside knowledge of the applicant's disclosure, refrain from using hindsight, and consider the subject matter claimed 'as a whole'.

Here, Chen, Iwata and Wehrung each fail to teach or even suggest the desirability of combination since none teach a stocker or overhead buffer having a gas purge device, among other elements of claims 1 and 16. Thus, it is clear that Chen, Iwata and Wehrung each fail to provide any incentive or motivation supporting the desirability of combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. §103 rejection.

In this context, the MPEP further provides at §2143.01:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.

In the above context, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. In the present case, it is clear that the Examiner's

combination can only arise solely from hindsight based on the invention without any showing, suggestion, incentive or motivation in Chen, Iwata or Wehrung for the combination as applied to claims 1 or 16 or their dependent claims 2, 6, 7, 18 and 20-22. Therefore, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

Rejections under 35 U.S.C. §103: Chen or Iwata in view of Pasadyn

Claims 3-5, 12-15, 17 and 25-28 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Chen or Iwata in view of U.S. Patent No. 6,297,114 to Pasadyn ("Pasadyn"). The Applicants traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claims 1, 11 and 16 and, thus, their dependent claims 3-5, 12-15, 17 and 25-28.

1. Even When Combined, the References Do Not Teach the Claimed Subject Matter

When evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, since Chen, Iwata and Pasadyn each fail to teach a stocker or overhead buffer having a gas purge device, among other elements of claims 1, 11 and 16, it is impossible to render the subject matter of any of claims 1, 11 and 16 and their dependent claims 3-5, 12-15, 17 and 25-28 as a whole obvious, and the explicit terms of the statute cannot be met.

Thus, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

2. The Combination of References is Improper

Assuming, arguendo, that the above argument for non-obviousness doesn't apply (which is clearly not the case based on the above), there is still another mutually exclusive and compelling reason why Chen, Iwata and Pasadyn cannot be applied to reject claims 1, 11 or 16 or their dependent claims 3-5, 12-15, 17 and 25-28 under 35 U.S.C. §103. That is, Chen, Iwata and Pasadyn each fail to teach or even suggest the desirability of combination since none teach a stocker or overhead buffer having a gas purge device, among other elements of claims 1, 11 and 16. Thus, it is clear that Chen, Iwata and Pasadyn each

fail to provide any incentive or motivation supporting the desirability of combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. §103 rejection.

As described above, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. In the present case, it is clear that the Examiner's combination can only arise solely from hindsight based on the invention without any showing, suggestion, incentive or motivation in Chen, Iwata or Pasadyn for the combination as applied to claims 1, 11 or 16 or their dependent claims 3-5, 12-15, 17 and 25-28. Therefore, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

Rejections under 35 U.S.C. §103: Chen or Iwata in view of Huang

Claims 6, 7 and 20-22 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Chen or Iwata in view of U.S. Patent No. 6,597,964 to Huang ("Huang"). The Applicants traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claims 1 and 16 and, thus, their dependent claims 6, 7 and 20-22.

1. Even When Combined, the References Do Not Teach the Claimed Subject Matter

When evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, since Chen, Iwata and Huang each fail to teach a stocker or overhead buffer having a gas purge device, among other elements of claims 1 and 16, it is impossible to render the subject matter of any of claims 1 and 16 and their dependent claims 6, 7 and 20-22 as a whole obvious, and the explicit terms of the statute cannot be met.

Thus, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

2. The Combination of References is Improper

Assuming, arguendo, that the above argument for non-obviousness doesn't apply (which is clearly not the case based on the above), there is still another mutually exclusive and compelling reason why Chen, Iwata and Huang cannot be applied to reject claims 1 or 16 or their dependent claims 6, 7 and

20-22 under 35 U.S.C. §103. That is, Chen, Iwata and Huang each fail to teach or even suggest the desirability of combination since none teach a stocker or overhead buffer having a gas purge device, among other elements of claims 1 and 16. Thus, it is clear that Chen, Iwata and Huang each fail to provide any incentive or motivation supporting the desirability of combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. §103 rejection.

As described above, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. In the present case, it is clear that the Examiner's combination can only arise solely from hindsight based on the invention without any showing, suggestion, incentive or motivation in Chen, Iwata or Huang for the combination as applied to claims 1 or 16 or their dependent claims 6, 7 and 20-22. Therefore, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

IV. Conclusion

It is clear from all of the foregoing that independent claims 1, 11 and 16 are in condition for allowance. Dependent claims 2-10, 12-15, 17-22 and 25-29 depend from and further limit independent claims 1, 11 and 16 and, therefore, are allowable as well.

It is believed that all matters set forth in the Office action have been addressed. Favorable consideration and an early indication of the allowability of the claims are respectfully requested. Should the Examiner deem that an interview with Applicant's undersigned attorney would expedite consideration, the Examiner is invited to call the undersigned attorney at the telephone number indicated below.

Respectfully submitted,



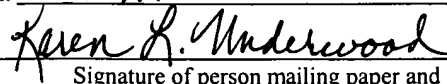
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